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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,346	02/24/2004	Michael Palmersten	1052.1104101	8763
28075	7590	01/04/2006		
CROMPTON, SEAGER & TUFTE, LLC 1221 NICOLLET AVENUE SUITE 800 MINNEAPOLIS, MN 55403-2420			EXAMINER DEVOTI, PAUL D	
			ART UNIT	PAPER NUMBER
			3637	
DATE MAILED: 01/04/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/785,346	<b>Applicant(s)</b> PALMERSTEN, MICHAEL	
	<b>Examiner</b> Paul Devoti	<b>Art Unit</b> 3637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Specification***

1. The use of the trademark NOMEX has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

2. The disclosure is objected to because of the following informalities:  
"manufacturing" (Page 9, line 17) should be replaced with "manufactured". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: In claim 2, it is unclear where first interlocking edge is located. The examiner is unsure if the second interlocking edge recited in line 3 is the same as the second interlocking edge recited in line 2.

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5. Claims 13, 17, 18, and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claim 13 recites the phrase "nomex honeycomb". The trademark NOMEX is used as a limitation to identify or describe a particular material or product, which makes the scope of the claim uncertain.
7. Claim 17 recites the limitation "first insulation piece". There is insufficient antecedent basis for this limitation in the claim.
8. Claim 18 recites the limitation "first insulation piece". There is insufficient antecedent basis for this limitation in the claim.
9. Claim 19 ends with a semicolon, therefore indicating an incomplete claim. It must end with a period.

***Claim Rejections - 35 USC § 102***

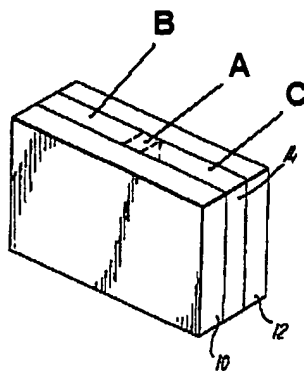
10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

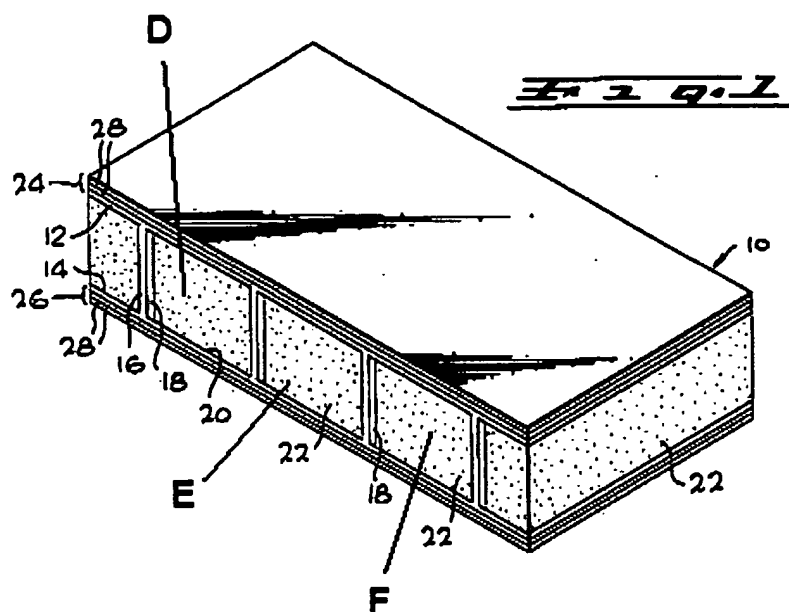
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11. Claims 1, 5, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by McGlashan et al. (GB 2192211). McGlashan et al. discloses a building block with a first skin (12) having a first face, a second skin (10) having a first face spaced apart from the first skin (12) first face, and a reinforcing member (A) having a first surface fixed to the first skin (12) first face and a second surface fixed to the second skin (10) first face. A first foam piece (B) has a first surface fixed to the first skin first face, a second surface fixed to the second skin first face, and a third surface facing a third surface of the reinforcing member (A). A second foam piece (C) has a first surface fixed to the first skin (12) first face, a second surface fixed to the second skin (10) first face, and a third surface facing a fourth surface of the reinforcing member. Regarding claim 5, the first (B) and second (C) foam pieces are fixed to the reinforcing member (A). Regarding claim 17, the third surface of the first insulation piece (B) abuts the third surface of the reinforcing member (A). Regarding claim 18, the third surface on the first insulation piece (B) is bonded to the third surface of the reinforcing member (A).



McGlashan et al. (GB 2192211) Figure 1

12. Claims 1, 11, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hatch et al. (US 4083159). Hatch et al. discloses a panel with a first skin (12) having a first face, a second skin (14) having a first face spaced apart from the first skin (12) first face, and a reinforcing member (16, 18) having a first surface fixed to the first skin (12) first face and a second surface fixed to the second skin (14) first face. A first foam piece (D) has a first surface fixed to the first skin (12) first face, a second surface fixed to the second skin (14) first face, and a third surface facing a third surface of the reinforcing member (16, 18). A second foam piece (E) has a first surface fixed to the first skin (12) first face, a second surface fixed to the second skin (14) first face, and a third surface facing a fourth surface of the reinforcing member. Regarding claim 11, the reinforcing member comprises a honeycomb material (Column 4, lines 39-48). Regarding claim 19, a third foam piece (F) extends between the first (12) and second skin (14) and a second reinforcing member extending between the first and second skin is located between the second foam piece (E) and third foam piece (F).



Hatch et al. (US 4083159) Figure 1

***Claim Rejections - 35 USC § 103***

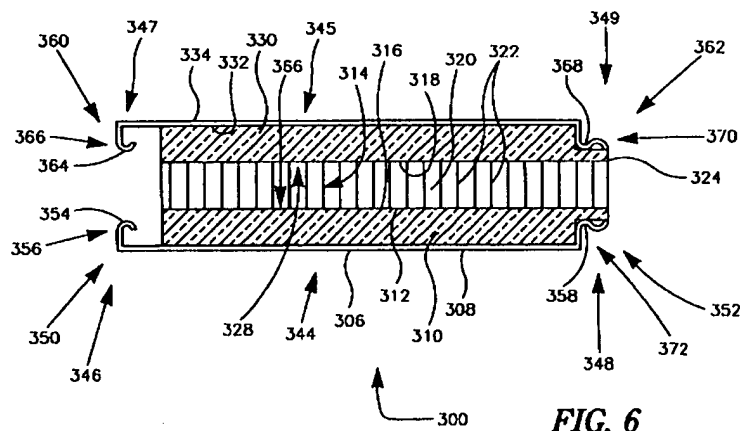
13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatch et al. in view of Palmersten (US 6256959). Hatch et al. discloses everything previously mentioned, but does not disclose a first and second interlocking edge, where the first interlocking edge is configured to interlock with a second interlocking edge of a

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second panel, and the first and second interlocking edges are formed from the first and second skins. Palmersten, however, discloses a building panel (300) with a first interlocking edge (350, 360) and second interlocking edge (362) wherein the first and second interlocking edges are formed from the first and second skins. Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to modify Hatch et al.'s panel to include a first and second interlocking edge that are formed from the first and second skins, as taught by Palmersten to make it easier to install the building materials.



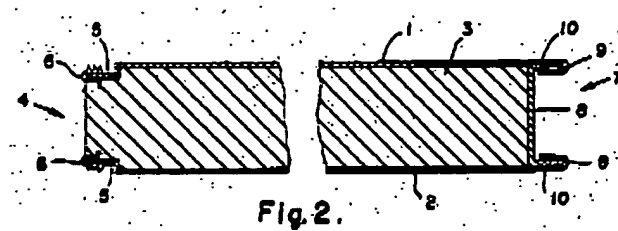
Palmersten (US 6256959) Figure 6

15. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hatch et al. in view of Palmersten (US 6256959). Hatch et al. in view of Palmersten teaches everything previously mentioned, including that the reinforcing member (A) is substantially parallel to the first interlocking edge.



16. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatch et al. in view of Nowobilski et al. (US 4514450). Hatch et al. discloses everything previously mentioned, but does not disclose the first skin comprises aluminum or steel. Nowobilski et al., however, discloses a panel with a first skin comprised of aluminum or steel (Column 4, line 51). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to modify Hatch et al.'s panel to include a first skin comprised of aluminum or steel, as taught by Nowobilski et al. to have a skin of desired strength.

17. Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatch et al. in view of Scott (US 3386218). Hatch et al. discloses everything previously mentioned, but does not disclose the reinforcing member comprises sheet metal. Scott, however, discloses a building panel with a reinforcing member (8) comprised of sheet metal. Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to modify Hatch et al.'s panel to include a reinforcing member comprised of sheet metal, as taught by Scott to provide strength and durability.



Scott (US 3386218) Figure 2

18. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hatch et al. in view of Scott. Hatch et al. in view of Scott discloses the claimed invention except for the width of the reinforcing member being greater than 0.0 inches and less than 0.40 inches. It would have been an obvious matter of design choice to make the width of the reinforcing member greater than 0.0 inches and less than 0.40 inches, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

19. Claims 12, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatch et al. in view of Cho et al. (US 2003/0126830). Hatch et al. discloses everything previously mentioned, but does not disclose the honeycomb material of the reinforcing member comprises a paper honeycomb, a Nomex honeycomb, or an aluminum honeycomb. Cho et al., however, discloses a panel with reinforcing sections comprising of a paper honeycomb, a Nomex honeycomb, or an aluminum honeycomb (Paragraph 29). Therefore, it would have been obvious to one

having ordinary skill in the art at the time of invention to modify Hatch et al.'s panel to include a reinforcing member comprising of a paper honeycomb, a Nomex honeycomb, or an aluminum honeycomb, as taught by Cho et al. to have a reinforcement of desired strength.

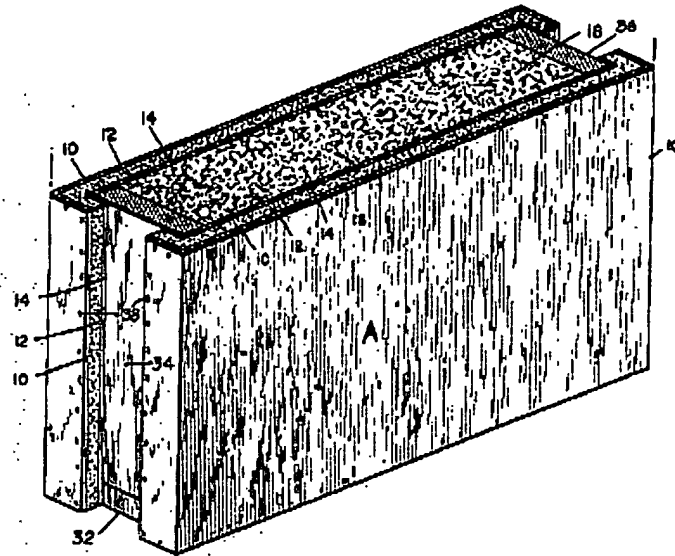
20. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hatch et al in view of Cho et al. Hatch et al. in view of Cho et al. discloses the claimed invention except for the width between the third and fourth surfaces of the reinforcing member is greater than 0.0 inches and less than 1.25 inches. It would have been an obvious matter of design choice to make the width between the third and fourth surfaces of the reinforcing member greater than 0.0 inches and less than 1.25 inches, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

21. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hatch et al. in view of Blair et al. (US 6511730). Hatch et al. discloses everything previously mentioned, but does not disclose the reinforcing member comprises an aluminum foam. Blair et al., however, discloses a panel with an aluminum foam reinforcement (Column 3, line 30). Therefore, it would have been obvious to one having ordinary skill in the art

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at the time of invention to modify Hatch et al.'s panel to include an aluminum foam reinforcing member, as taught by Blair et al. to provide a strong reinforcement in the panel.

22. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hatch et al. in view of MacMillan et al. (US 2757116). Hatch et al. discloses everything previously mentioned, but does not disclose a second reinforcing member extending between the first skin, having a first surface facing the first foam piece and a second exposed surface opposite the first surface, and a third reinforcing member extending between the first skin and the second skin, having a first surface facing the second foam piece and a second exposed surface opposite the first surface. MacMillan et al., however, discloses a panel having a reinforcing member (34) extending between the first and second skin, having a first surface facing the insulating material (18) and a second exposed surface opposite the first surface, and another reinforcing member (36) extending between the first skin and the second skin, having a first surface facing the insulating material (18) and a second exposed surface opposite the first. Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to modify Hatch et al.'s panel to include a second and third reinforcing members with each having first surface facing the foam piece and an opposite surface that is exposed, as taught by MacMillan et al. to provide desired strength for the panel.



23. Claims 21, 22, 23, 24, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatch et al. Hatch et al. discloses a panel that meets all of the structural limitations as described in claims 21, 22, 23, 24, 26, and 27, and it would be obvious to one of ordinary skill in the art to make a panel using the structure disclosed by Hatch et al.

24. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hatch et al. in view of Scott. Hatch et al. in view of Scott discloses a panel that meets all of the structural limitations as described in claim 25 and it would be obvious to one of ordinary

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skill in the art to make a panel using the structure disclosed by Hatch et al. in view of Scott.

### ***Conclusion***

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fink (US 1923195) discloses a heat insulating structure with first and second skins, insulating members, and reinforcing members. Symons (US 5309690) discloses a panel with first and second sheets, filler composition, and reinforcing members. Heinemann (EP 550873) discloses a panel section with first and second interlocking edges configured to interlock with another panel section. Tashjian (US 2159300) discloses an insulating board with filler material and reinforcing members. Gilcrest (US 1371756) discloses a wall panel first and second sheets and reinforcing members. Montes (US 6122879) discloses insulated panels with interlocking edges configured to interlock with another panel section. Ford (US 5638651) discloses an insulated panel with interlocking sections. Porter (US 6481172) discloses insulated panels with reinforcing members.

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Devoti whose telephone number is 571-272-2733. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on 571-272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PD *PD*  
12/22/05

**LANNA MAI**  
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